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## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

July 27, 2010

SUPERFUND DIV.  
REMEDIAL BRANCH  
(6SF-R)

Mr. Gary Miller  
Superfund Division, Region 6 (6SF-RA)  
Arkansas/Texas Section  
U.S. Environmental Protection Agency  
1445 Ross Avenue, Suite 1200  
Dallas, Texas 75202-2733

Re: Discharge of Accumulated Water within Aboveground Storage Tank Farm Containment Area, Gulfco Marine Maintenance Site, Freeport, Texas

Dear Mr. Miller:

On April 27, 2010, Pastor, Behling & Wheeler, LLC (PBW), on behalf of LDL Coastal Limited LP (LDL), Chromalloy American Corporation (Chromalloy) and The Dow Chemical Company (Dow), submitted an Industrial Wastewater Permit Application Abbreviated Technical Report (report) for discharge of accumulated water within an aboveground storage tank (AST) Tank Farm containment area at the above-referenced Site to the Texas Commission on Environmental Quality (TCEQ), Remediation Division. The accumulated water is to be removed from the containment area as part of a Removal Action at the AST Tank Farm. PBW requested that the TCEQ review the submitted report and develop effluent limitations to assess whether the accumulated water could be discharged to the nearby Intracoastal Waterway. On April 29, 2010, the TCEQ Remediation Division forwarded the report via interoffice memorandum to the Industrial Permits, Wastewater Permit Section.

Based on the report and supplemental information submitted by PBW on May 11, 2010 in response to a TCEQ request, TCEQ Industrial Permits, Wastewater Permits Section technical staff prepared a memorandum dated June 22, 2010 (see Attachment 1). The memorandum provides water quality- and technology-based effluent limitations for certain specific parameters for the requested discharge. The Table 1 (see Attachment 2) compares the effluent limitations from this memorandum to the maximum concentrations of the parameters in four samples collected by PBW from the AST Tank Farm containment area as reported in the Abbreviated Technical Report.

As shown in Table 1, the maximum sample concentrations for all parameters were below all effluent limitations. Based on this evaluation, the TCEQ recommends that the accumulated water within the AST tank farm containment area can be discharged to the Intracoastal Waterway as requested by PBW. It is recommended that pH measurements be collected prior to discharge to verify that pH values for the discharge are within the specified limitations.



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Mr. Gary Miller  
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Thank you for the opportunity to provide this evaluation. Should you have any questions regarding this recommendation or the attached memorandum, please do not hesitate to contact me at (512) 239-6368.

Sincerely,



Ludmila Voskov, P.G., Project Manager  
Superfund Section  
Remediation Division  
Texas Commission on Environmental Quality

LV/sr

Enclosures

cc: Larry Champagne, TCEQ, Remediation Division  
Mr. Eric Pastor - Pastor, Behling & Wheeler, LLC, 2201 Doble Creek Drive,  
Suite 4004, Round Rock, TX 78664

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SUP 116

## Texas Commission on Environmental Quality

### INTEROFFICE MEMORANDUM

TO: Luda Voskov, Project Manager  
Superfund Section  
Remediation Division (MC 221)

DATE: June 22, 2010

Thru: *VM 6/25/10*  
Yvonna Miramontes, Team Leader  
Industrial Permits, Wastewater Permits Section (MC 148)

From: Tres Koenings, Permit Writer  
Industrial Permits, Wastewater Permits Section (MC 148)

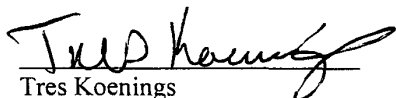
Subject: Gulfco Marine Maintenance Superfund Site

The following is a summary of our review and recommendations based on the Industrial Wastewater Permit Application Technical Report submitted with the Interoffice Memorandum dated on April 29, 2010.

The Gulfco Marine Maintenance Superfund site has no current business activity. The site was previously used for barge cleaning and maintenance. An aboveground storage tank (AST) Tank Farm, consisting of 14 tanks located within two concrete containment areas, is located in the southern part of the site. This area was used for storage of product heels and wash waters associated with barge cleaning operations. The accumulated storm water from the Tank Farm area needs to be removed and discharged prior to removal of the Tank Farm. Constituents of Concern (COC) include chemicals formerly store in the Tank Farm, which were benzene, chloroform, 1,2-dichloroethane, trichloroethylene, tetrachloroethylene, and vinyl chloride.

The discharge route is directly to the Brazos River Tidal via the Gulf Intracoastal Waterway (GIWW) in Segment No. 1201 of the Brazos River Basin. The designated uses and dissolved oxygen criterion as stated in Texas Surface Water Quality Standards (30 TAC Chapter 307.10) for Segment No. 1201 are contact recreation, public water supply, high aquatic life use and 4.0 mg/L dissolved oxygen.

As requested by memorandum, water quality based effluent limitations are provided for this Superfund Site. Attachment 1 provides the effluent limitations necessary for the protection of aquatic life and human health. Regulations promulgated in Title 40 of the Code of Federal Regulations require technology-based limitations be placed in wastewater discharge permits based on effluent limitations guidelines, where applicable, and/or on best professional judgment (BPJ) in the absence of guidelines. Attachment 2 provides technology based limitations for use at your discretion based upon 40 CFR §414 J – Direct Discharge Point Source That Do Not Use End-of-Pipe Biological Treatment.

  
Tres Koenings

June 22, 2010  
Date

**Received**

**JUN 25 2010**

**Superfund Section**

**ATTACHMENT 1**

**WATER QUALITY BASED EFFLUENT LIMITATIONS**

<b>Parameter</b>	<b>Daily Average</b>	<b>Daily Maximum</b>	<b>Sample Type</b>	<b>Frequency</b>
Flow (MGD)	(Report)	(Report)	Meter	1/week (*1)
Benzene	2.4 mg/L	5.1 mg/L	Grab	1/week (*1)
Chloroform	29.4 mg/L	62.2 mg/L	Grab	1/week (*1)
1,2-dichloroethane	1.6 mg/L	3.5 mg/L	Grab	1/week (*1)
Trichloroethylene	13.9 mg/L	29.5 mg/L	Grab	1/week (*1)
Tetrachloroethylene	7.3 mg/L	15.5 mg/L	Grab	1/week (*1)
Vinyl Chloride	9.5 mg/L	20.0 mg/L	Grab	1/week (*1)
pH (standard units)	(Minimum 6.0)	(Maximum 9.0)	Grab	1/week (*1)

(\*1) When discharge occurs.

**CALCULATION OF WATER QUALITY BASED EFFLUENT LIMITATIONS:**

<b>HUMAN HEALTH</b>						
<b>CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS</b>						
<i>Parameter</i>		<i>SW Fish Only (ug/L)</i>	<i>WLAh</i>	<i>LTAh</i>	<i>Daily Avg. (ug/L)</i>	<i>Daily Max. (ug/L)</i>
Benzene		70.8	1770.00	1646.10	2419.77	5119.37
Chloroform		861	21525.00	20018.25	29426.83	62256.76
1,2-Dichloroethane		49.3	1232.50	1146.23	1684.95	3564.76
Tetrachloroethylene		215	5375.00	4998.75	7348.16	15546.11
Trichloroethylene		408	10200.00	9486.00	13944.42	29501.46
Vinyl Chloride		277	6925.00	6440.25	9467.17	20029.18

**ATTACHMENT 2**

**TECHNOLOGY BASED EFFLUENT LIMITATIONS**

<b>Parameter</b>	<b>Daily Average</b>	<b>Daily Maximum</b>	<b>Sample Type</b>	<b>Frequency</b>
Flow (MGD) (*1)	(Report)	(Report)	Meter	1/week (*2)
Benzene (*1)	0.057 mg/L	0.134 mg/L	Grab	1/week (*2)
Chloroform (*1)	0.111 mg/L	0.325 mg/L	Grab	1/week (*2)
1,2-dichloroethane (*1)	0.18 mg/L	0.574 mg/L	Grab	1/week (*2)
Tetrachloroethylene (*1)	0.052 mg/L	0.164 mg/L	Grab	1/week (*2)
Trichloroethylene (*1)	0.026 mg/L	0.069 mg/L	Grab	1/week (*2)
Vinyl Chloride (*1)	0.097 mg/L	0.172 mg/L	Grab	1/week (*2)
pH (standard units) (*1)	(Minimum 6.0)	(Maximum 9.0)	Grab	1/week (*2)

(\*1) These limitations are based upon 40 CFR §414 J – Direct Discharge Point Source That Do Not Use End-of-Pipe Biological Treatment. Technology based limitations are more stringent than the water quality-based limitations and may be used if deemed appropriate by the TCEQ project manager. Flow and pH technology based limitations were the same as water quality-based limitations.

(\*2) When discharge occurs.

### **DEFINITIONS**

1. Daily average flow - the arithmetic average of all determinations of the daily discharge within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily discharge, the determination shall be the arithmetic average of all instantaneous measurements taken during that month.
2. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.
3. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements. When four samples are not available in a calendar month, the arithmetic average of the four most recent measurements or the arithmetic average (weighted by flow) of all values taken during the month shall be used as the daily average concentration.
4. Daily maximum concentration - the maximum concentration measured on a single day, by composite sample unless otherwise specified elsewhere in this permit, within a period of one calendar month.
5. Grab sample - an individual sample collected in less than 15 minutes.

### **OTHER REQUIREMENTS**

The following other requirements are recommended for this discharge:

### **SAMPLING AND LABORATORY TESTING METHODS**

1. All sample collection shall be conducted according to recommendations found in the latest edition of "Standard Methods for the Examination of Water and Wastewater" (prepared and published jointly by the American Public Health Association, the American Waterworks Association, and the Water Pollution Control Federation), or the Environmental Protection Agency manual entitled "Methods for Chemical Analysis of Water and Wastes" (1979), or the Environmental Protection Agency manual entitled "Biological Field and Laboratory Methods for Methods for Measuring the Quality of Surface Waters and Effluents" (1973).
2. Sample containers, holding times, preservation methods and physical, chemical and microbiological and analyses of effluents shall meet the requirements specified in regulations published in the 40 Code of Federal Regulations Part 136 pursuant to the Federal Water Pollution Control Act, Chapter 304(g), and be conducted according to this federal regulation or the latest edition of "Standard Methods for the Examination of Water and Wastewater."
3. Flow measurements, equipment, installation, and procedures shall conform to those prescribed in the "Water Measurement Manual," United States Department of the Interior Bureau of

Reclamation, Washington, D.C., or methods that are equivalent as approved by the executive director.

4. Laboratories shall routinely use and document intra laboratory quality control practices as recommended in the latest edition of the Environmental Protection Agency manual entitled "Handbook for Analytical Quality Control in Water and Wastewater Laboratories." These practices will include the use of internal quality control check samples.
5. The sampling and laboratory facilities, data, and records of quality control are subject to periodic inspection by commission personnel. Should the procedures specified in this section not be suitable to any particular situation, nonstandard sampling and testing techniques may be employed in accordance with the procedures outlined in 30 TAC Chapter 319.12 (relating to Alternative Sampling and Laboratory Testing Methods).
6. The discharge shall not contain floating solids, visible oil or visible foam in other than trace amounts.
7. All laboratory tests performed to demonstrate compliance with the requirements of this authorization must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

**ATTACHMENT 2**

**TABLE 1**

**COMPARISON OF MAXIMUM SAMPLE CONCENTRATIONS TO EFFLUENT LIMITATIONS**

<b>Parameter</b>	<b>Maximum Sample Concentration<sup>1</sup></b>	<b>Water-Quality Based Effluent Limitations<sup>2</sup></b>		<b>Technology-Based Effluent Limitations<sup>2</sup></b>	
		<b>Daily Average</b>	<b>Daily Maximum</b>	<b>Daily Average</b>	<b>Daily Maximum</b>
Benzene	0.015 mg/L	2.4 mg/L	5.1 mg/L	0.057 mg/L	0.134 mg/L
Chloroform	0.095 mg/L	29.4 mg/L	62.2 mg/L	0.111 mg/L	0.325 mg/L
1,2-dichloroethane	0.045 mg/L	1.6 mg/L	3.5 mg/L	0.18 mg/L	0.574 mg/L
Trichloroethylene	0.018 mg/L	13.9 mg/L	29.5 mg/L	0.026 mg/L	0.069 mg/L
Tetrachloroethylene	0.00627 J mg/L	7.3 mg/L	15.5 mg/L	0.052 mg/L	0.164 mg/L
Vinyl Chloride	<0.000765 mg/L	9.5 mg/L	20.0 mg/L	0.097 mg/L	0.172 mg/L
pH (Standard Units)	Not Measured	(Minimum 6.0)	(Maximum 9.0)	(Minimum 6.0)	(Maximum 9.0)

Notes:

<sup>1</sup>Maximum concentration in accumulated water samples collected from containment area. See Table 2 for complete analytical results for these samples.

<sup>2</sup>From Attachment 1 of June 22, 2010 TCEQ Memorandum.